

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Computer-aided method for recording and billing of services during roaming of a mobile IP node (20) in heterogeneous WLANs, comprising:
accessing, via a the mobile IP node (20) accessing node, an access point (21/22) of a WLAN within a basic service area of a the WLAN by a wireless interface, the basic service area of the WLAN including one or more access points (21/22) assigned to an access-server (23/1001), server;
receiving, by at which the mobile IP node (20), node, a upon request of from the access server (23/1001), transmits to transmit to the access server (23/1001) an IMSI stored on an a SIM card (201) of the mobile IP node (20), and node, the IMSI of the mobile IP node (20) is being stored in a database (31) of an a SIM-RADIUS module (30), characterized module;
transmitting, from the mobile IP node the IMSI stored on the SIM card of the mobile IP node, to in that by means of an a SIM user database (34) and an a SIM gateway module (32), an allowing the SIM-RADIUS module (30) supplements user specifically the to supplement a user specified logical IP data channel of the WLAN toward corresponding GSM data for signal and data channels of a GSM network, at least one of an the authentication and/or or service authorization of the mobile IP node (20) being carried out at one of an HLR (37) and/or or a VLR (37) of a the GSM network by, network based on the IMSI of the SIM card (201) of the mobile node (20), IP node;
employing in that by means of a billing gateway interface to enable a billing module (1003) accesses to access the access-server (23/1001), first call server, the billing module receiving a first call detail records record of the mobile IP node (20) being

transmitted (1011) from the access server (23/1001) to the billing module (1003), and server, the billing gateway interface (1031) including an assigned billing management database (1032) with the a configuration profile of for each access server (23/1001), server;

transmitting, in that second call detail records of the mobile IP node (20) are transmitted to a proxy module (1002), which module, a second call detail record of the mobile IP node, the proxy module (1002) captures capturing data relating to at least one of the an identity of the mobile IP node (20) and/or node, a duration of the obtained service, and/or or a provider of the obtained service and passes it on (1012) service;

transferring, from the proxy module to the billing module (1003), and module, the captured data;

generating, in that the billing module (1003) generates module, TAP files (1014) corresponding to the obtained service, service obtained by the mobile IP node based on the transferred captured data of from the proxy module (1002) and the first the first call detail records (1011), and transmits these record;

transmitting the generated TAP files, together with billing instructions (1013) instructions, from the billing module to a clearing module (1004), module, the billing instructions (1013) including at least one of user-specific and/or or service-provider-specific billing data, —and the clearing module (1004) at least one of billing (1016) the service obtained by the user (1008) to a provider (1008) of a fixed network (1007) and/or or transmitting the TAP files (1017) to a GSM (1005) service provider (1006) for billing.

2. (Currently Amended) Computer-aided method according to claim 1, characterized in that a wherein the first call detail record is created based at least on the IP address of the mobile IP node (20) and identifications identification of the service provider whose service was obtained by the mobile IP node.

3. (Currently Amended) Computer-aided method according to claim 1, ~~characterized in that the~~ wherein a data stream of the mobile node (20) node, when accessing the WLAN from the access ~~point (21/22) point~~, is directed by a mobile radio network service provider.

4. (Currently Amended) Computer-aided method according to claim 1, ~~characterized in that wherein~~ the TAP files (1014) are created based on at least ~~on one of~~ Inter Operator Tariffs and Public Mobile Network TAP identification codes.

5. (Currently Amended) Computer-aided method according to claim 1, ~~characterized in that the~~ wherein the billing instructions are retrieved from a billing management database (1032) includes including at least one of IP addresses and/or or GSM identification of at least one of the users and/or or service providers.

6. (Currently Amended) Computer-aided method according to ~~claim 1, claim 5,~~ wherein characterized in that the billing management database (1032) includes at least one of Inter Operator Tariffs and Public Mobile Network TAP identification codes.

7. (Currently Amended) Computer-aided method according to claim 1, ~~characterized in that wherein~~ the ~~second <sic. first> SIM-based first call detail records record~~ of the mobile IP node (20) ~~are is~~ transmitted (1010/1011) from the access server (23/1001) to the billing ~~module (1003) module~~, the first call detail record being SIM-based, and the ~~first <sic. second> IP-based second call detail records record~~ is transmitted from the access server (23/1001) to the proxy ~~module (1002) module~~, the second call detail record being IP-based.

8. (Currently Amended) System for recording and billing services during roaming of a mobile IP node (20) in heterogeneous WLANs, ~~which system includes~~ comprising:

at least one WLAN with a basic service area in each case, which basic service area of ~~a the WLAN includes includes:~~ at least one or more access points (21/22) point

assigned to an access-server (23/1001), ~~which server, the at least one access points (21/22)~~
~~include-point including~~ a wireless interface (211) for communication with at least one mobile
 IP-nodes (20), ~~and which node;~~

at least one mobile IP nodes (20) include-node including a SIM card (201) for
 storing an-IMSI, characterized IMSI;

at least one in that the access server (23/1001) <includes> comprising:

a SIM-RADIUS-module (30), module;

a an-SIM user-database (34) database, and

a an-SIM gateway module (32) for user-specific supplementation of the
a logical IP data channel of the WLAN toward corresponding GSM data for signal and data
channels of a GSM network, at least one of the authentication and/or or service authorization
of the mobile IP node (20) being carried out at one of an HLR (37) and/or or a VLR (37) of a
the GSM network, based on the IMSI of the SIM card (201) of the mobile-node (20), by node;

~~in that the access server (23/1001) includes a billing module (1003)~~
 with a billing gateway interface (1031) for access to multiple access servers
 (23/1001), ~~servers, at least one first call detail records-record~~ of the mobile IP node (20) being
 transmittable (1011) ~~from the access server to receivable by the billing-module (1003),~~
module, and the billing gateway interface (1031) including an-assigned-a billing management
database (1032) with the configurations of the individual access servers (23/1001), servers;
and

~~in that by means of a proxy module (1002) for downloading a second call~~
 detail ~~records-record~~ of the mobile IP node (20) ~~are downloadable (1010) from the at least one~~
 access-server (1001), ~~by means of server, the proxy module (1002) capturing at least one of~~
an the identity of the mobile IP-node (20), node a duration of the obtained service, and a

provider of the obtained service ~~being able to be captured and able to be passed on (1012) to~~
the billing ~~module (1003),~~ module,

~~wherein in that by means of the billing module (1003) generates~~ TAP files
(1014) ~~corresponding to the obtained service~~ obtained by the mobile IP node based on the
captured data, the TAP files being are able to be generated, and these are transmittable,
together with billing ~~instructions (1013),~~ instructions, to a clearing ~~module (1004),~~ module,
the billing instructions (1013) including at least one of user-specific ~~and/or or~~ service-
provider-specific billing data.

9. (Currently Amended) System according to claim 8, ~~characterized in that by~~
~~means of~~ wherein, in the access server (23/1001) server, the second call detail records are
~~able to be record is created~~ based at least on ~~the an~~ IP address of the mobile IP node (20) and
~~identifications~~ identification of the service ~~providers~~ provider whose service was obtained by
the mobile IP node.

10. (Currently Amended) System according to claim 8, ~~characterized in that the~~
wherein a data stream of the mobile IP node (20) during access to the WLAN from the access
point (21/22) is directed by a mobile radio network service provider.

11. (Currently Amended) System according to claim 8, ~~characterized in that~~
wherein the TAP files (1014) include at least information relating to at least one of Inter
Operator Tariffs and Public Mobile Network TAP identification codes.

12. (Currently Amended) System according to claims 8, ~~characterized in that~~
wherein the billing management database (1032) includes at least one of IP addresses ~~and/or~~
or GSM identification of at least one of the users ~~and/or or~~ service providers.

13. (Currently Amended) System according to claim 8, ~~characterized in that~~
wherein the billing management database (1032) includes at least one of Inter Operator
Tariffs and Public Mobile Network TAP identification codes.

14. (Currently Amended) System according to claim 8, ~~characterized in that~~
wherein the first SIM-based call detail records record of the mobile IP node (20) are is
transmitted (1010/1011) from the access server (23/1001) to the billing module (1003),
module, the first call detail record being SIM-based, and the second IP-based call detail
records record is transmitted from the access server (23/1001) to the proxy module (1002).
module, the second call detail record being IP-based.